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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/733,773 | 12/12/2003 | Hanlong Tsai | 1226-105 | 8727 |
| 23117 | 7590 | 07/19/2006 | EXAMINER | |
| NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203 | | | RONESI, VICKEY M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1714 | |
| DATE MAILED: 07/19/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,773

Applicant(s)

TSAI ET AL.

Examiner

Vickey Ronesi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>5/10/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the parenthetical phrase “(in the composition, hereinafter likewise).” Parentheses should be recited in claims since it is not clear if the language in with the parentheses is positively recited.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2 Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama et al (US 5,478,895).

Sugiyama et al discloses a polyoxymethylene composition comprising 100 parts by weight (pbw) polyoxymethylene; 0.01-5 pbw hindered phenol antioxidant (col. 2, line 62 to col. 3, line 25); 0.001-10 pbw alkaline earth metal oxide such as calcium oxide and magnesium oxide (col. 3, lines 54-67); and 0.01-2 pbw fatty acid ester such as pentaerythritol tristearate (col. 4, lines 5-15), i.e., fatty acid ester with at least 60 mol % esterified hydroxyl groups. See examples for exemplified amounts of antioxidant, metal oxide, and fatty acid ester, wherein calcium and magnesium oxide are exemplified.

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While Sugiyama et al does not exemplify a composition containing pentaerythritol tristearate with hindered phenol antioxidant and alkaline earth metal oxide, this does not negate a finding of obviousness under 35 USC 103 since a preferred embodiment such as an example is not controlling. Rather, all disclosures “including unpreferred embodiments” must be considered. *In re Lamberti* 192 USPQ 278, 280 (CCPA 1976) citing *In re Mills* 176 USPQ 196 (CCPA 1972). Therefore, it would have been obvious to one of ordinary skill in the art to utilize pentaerythritol tristearate given that Sugiyama et al teaches using it.

3. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al (JP 07-173368).

Pending a full English-language translation of Kondo et al, in setting forth this rejection, a machine translation has been relied upon.

Kondo et al discloses an oxymethylene copolymer resin composition (abstract) comprising an 100 parts by weight (pbw) oxymethylene copolymer; 0.01-5 pbw hindered phenol; 0.001-5 pbw fatty acid alkaline earth metal salt such as calcium laurate; 0.01-5.0 pbw fatty acid ester of a polyhydric alcohol such as pentaerythritol ([0026]) and a fatty acid of 22-32 carbons ([0026]); and 0.01-5.0 pbw fatty acid amide such as bisstearamides ([0027]). See examples for exemplified amounts of antioxidant, metal oxide, fatty acid ester, and fatty acid amide, wherein calcium stearate and ethylene-bis-stearamide are exemplified.

While Kondo et al does not exemplify an oxymethylene copolymer composition comprising a fatty acid ester of pentaerythritol and a fatty acid of 22-32 carbons, this does not negate a finding of obviousness under 35 USC 103 since a preferred embodiment such as an

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example is not controlling. Rather, all disclosures “including unpreferred embodiments” must be considered. *In re Lamberti* 192 USPQ 278, 280 (CCPA 1976) citing *In re Mills* 176 USPQ 196 (CCPA 1972). Therefore, given that it teaches the use of such a fatty acid ester, it would have been obvious to one of ordinary skill in the art to utilize a fatty acid ester of pentaerythritol in an oxymethylene copolymer resin composition with a hindered phenol, alkaline earth metal salt, and a fatty acid bisamide.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oka (US 6,051,660).

Oka discloses a polyacetal resin molding composition comprising 100 parts by weight (pbw) polyacetal resin; 0.1-5 pbw steric-hindered phenolic antioxidant (col. 6, lines 24-47); 0.1-5 pbw (col. 9, line 22) mold release agent selected from fatty acid esters derived from fatty acids and polyhydric alcohols such as propylene glycol and pentaerythritol (e.g., pentaerythritol tristearate) (col. 7, line 56 to col. 8, line 51) and amido group-containing aliphatic compounds such as fatty acid bisamides (col. 9, lines 6-20); and 0.1-5 pbw formic acid scavenger such as inorganic acid salts of alkaline earth metals (col. 6, line 60 to col. 7, line 5). In the examples, Oka uses hindered phenol type antioxidants, calcium stearate as formic acid scavenger, and ethylenebisstearylamine as mold release agent.

With respect to using mixtures of mold releasing agents, i.e., both fatty acid esters and amido group-containing aliphatic compounds, it is considered that it would have been obvious to one of ordinary skill in the art to use more than one ingredient which is known to be used for the same reason. It is well settled that it is *prima facie* obvious to combine two ingredients, each of

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which is targeted by the prior art to be useful for the same purpose. *In re Lindner* 457 F.2d 506, 509, 173 USPQ 356, 359 (CCPA 1972).

While Oka does not exemplify a composition comprising a steric-hindered phenolic antioxidant and alkaline earth metal salt with a fatty acid ester like presently claimed, this does not negate a finding of obviousness under 35 USC 103 since a preferred embodiment such as an example is not controlling. Rather, all disclosures “including unpreferred embodiments” must be considered. *In re Lamberti* 192 USPQ 278, 280 (CCPA 1976) citing *In re Mills* 176 USPQ 196 (CCPA 1972). Therefore, it would have been obvious to one of ordinary skill in the art to utilize any of the mold releasing agents taught by Oka, including pentaerythritol tristearate, in the presence of an amido group-containing aliphatic compound such as ethylenebisstearylamine given that each is taught by Oka.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

7/11/2006
Vickey Ronesi



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